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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,607	03/23/2004	David A. Goldman	20060/10001B	2446

34431 7590 09/22/2004

GROSSMAN & FLIGHT, LLC
20 N. WACKER DRIVE
SUITE 4220
CHICAGO, IL 60606

EXAMINER

NERBUN, PETER P

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,607

Applicant(s)

GOLDMAN, DAVID A.

Examiner

Peter P. Nerbun

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-25 and 27-38 is/are rejected.
- 7) ☒ Claim(s) 13, 26 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12, 14-25, and 27-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Futamura (U.S.P. 5,740,056). The patent to Futamura discloses a method of generating embroidery data from image data (using image scanner 12, Fig. 2), comprising receiving edge contour data based on the image data (defined by curves L0, L1, L2, L3, etc., Fig. 5), receiving skeletal data (defined by the curved lines in Fig. 6) based on the edge contour data, automatically identifying an interrelationship between a first portion of the edge contour data, a second portion of the edge contour data and the skeletal data (the automatic processing of the inner and outer contours L0, L1, etc., Fig. 5 performed by CPU 2, Fig. 3 that removes pixels between the inner and outer peripheries to produce a thinned or “skeletonized” contour (Fig. 6) constitutes and automatic identification of an interrelationship between a first portion of the edge contour data, a second portion of the edge contour data and the skeletal data – See Ex parte David A. Goldman, decision of the Board of Patent Appeals and Interferences, Application No. 09/134,981, paper No. 16, page 6, lines 13-19 and page 7, lines 1-2. This decision is available on the public PAIR (Patent Application Information Retrieval system) – see <http://portal.uspto.gov/external/portal/pair>.

Art Unit: 3765

The method of Futamura further includes the step of generating embroidery data based on the interrelationship between the first and second portions of the edge contour data and the skeletal data (see col. 7, lines 5-11). With regard to claim 3, note that the vertices of the "smoke rings" shown in Fig. 6 are classified from the skeletal data since a vertex of an ellipse is defined as a point where an axis of the ellipse intersects the curve of the ellipse. Thus in the ellipses which define the "smoke rings" in Fig. 6, these vertices constitute the four points at the extreme upper, lower and side portions of each ellipse. These vertices are classified according to their separation distance which varies according to the size of each ellipse. With regard to claim 6 note that a "singularity" is defined as a separate unit (e.g. a pixel which defines an individual section of the space between the continuous borderlines L0 and L1 in Fig. 5). These pixels or singularities which are associated with the image data are eliminated in a pixel deletion process to produce the skeletal data represented by the curved lines in Fig. 6. Regarding claim 23, it is noted that the path planning to generate the embroidery data includes an inorder "recursive traversal algorithm" since nodes which are defined by the dots in Fig. 7 are visited one after the other by a recursive traversal algorithm stored in processor 2, Fig. 3 so as to sample the coordinates of the nodes during the generation of the embroidery data.

Claims 13,26, and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 13 will be deemed allowed if rewritten as previously indicated since claim 13 recites the steps of generating embroidery data based on the interrelationship between first and second portions of edge contour data and skeletal data including generating a plurality of stroke normals between consecutive points within first and second portions of the edge contour data, identifying at least one discontinuity associated with the plurality of stroke normals and substantially eliminating the at least one discontinuity.

Claim 26 will be deemed allowed if rewritten as previously indicated since claim 26 recites a system for generating embroidery data based on the interrelationship between first and second portions of edge contour data and skeletal data by generating a plurality of stroke normals between consecutive points within the first and second portions of the edge contour data including a processor that is programmed to identify at least one discontinuity associated with the plurality of stroke normals and substantially eliminate the at least one discontinuity.

Claim 39 will be deemed allowed if rewritten as previously indicated since claim 39 recites a machine readable medium having instructions stored thereon that, when executed, causes a machine to generate embroidery data based on the interrelationship between first and second portions of edge contour data and skeletal data including generating a plurality of stroke normals between consecutive points within first and second portions of the edge contour data, and causes the machine to identify at least

Art Unit: 3765

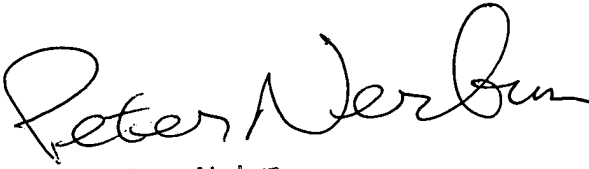
one discontinuity associated with the plurality of stroke normals and substantially eliminating the at least one discontinuity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter P. Nerbun whose telephone number is 703-308-0955. The examiner can normally be reached on M-F (1st Week) M-Th (2d Week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on 703-305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Nerbun
September 19, 2004



Peter Nerbun
Primary Examiner